

PATENT
Docket No. 1232-4568

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Serial No.: | 09/400,154 | Confirmation No.: | 3080 |
| Applicant(s): | TAKIGUCHI et al. | Group Art Unit: | 2622 |
| | | Examiner: | J. P. MISLEH |
| Filed: | Sep. 21, 1999 | Customer No.: | 27123 |
| For: | IMAGE INPUT SYSTEM CONNECTABLE TO AN IMAGE INPUT DEVICE HAVING A PLURALITY OF OPERATION MODE | | |

APPEAL BRIEF UNDER 37 C.F.R. §41.37

Mail Stop Appeal Brief - Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants submit this Appeal Brief in support of the Notice of Appeal filed March 7, 2008. The Commissioner is authorized to charge the requisite fee under §41.20(b)(2) in the amount of \$510.00, and any additional fees necessitated by this Brief to deposit account no. 13-4500 (Order No. 1232-4568).

Applicants respectfully request that this Brief be fully considered by the Board and that the Examiner's rejection of the claims be reversed for the reasons stated herein.

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I. REAL PARTY IN INTEREST

The real party in interest is Canon Kabushiki Kaisha, the assignee of this application.

II. RELATED APPEALS AND INTERFERENCES

Applicants are unaware of any related appeals and/or interferences.

III. STATUS OF CLAIMS

Claims 1-26 were originally presented. Claims 27-75 were subsequently added during the course of examination. Claims 1-54 were cancelled during the course of examination prior to filing a Notice of Appeal on March 7, 2008. Claims 55-66, 73 and 74 were canceled in an Amendment After Notice of Appeal and Prior to Appeal Brief filed March 28, 2008.

Accordingly, claims 67-72 and 75 are under examination and stand rejected. The rejection of these claims is hereby appealed. A complete copy of the claims involved in the appeal, i.e., claims 67-72 and 75 (as amended during the course of examination of this application and as finally rejected), is attached hereto.

IV. STATUS OF AMENDMENTS

In response to a first Office Action dated April 22, 2004, an Amendment was filed on July 21, 2004 and entered. In response to a final Office Action mailed January 11, 2005, the Applicants filed a Request for Continued Examination along with a Preliminary Amendment on February 23, 2005.

In response to a non-final Office Action mailed April 7, 2005, the Applicants filed an Amendment on June 29, 2005. In response to a final Office Action mailed September 21, 2005, the Applicants filed a Request for Continued Examination along with a Preliminary Amendment on November 21, 2005.

In response to a non-final Office Action mailed February 8, 2006, the Applicants filed an Amendment on May 8, 2006. In response to a Notice of Non-Compliant Amendment mailed July 26, 2006, the Applicants filed an Amendment on August 2, 2006. In response to a final Office Action mailed October 31, 2006, the Applicants filed a Request for Continued Examination along with a Preliminary Amendment on April 2, 2007.

In response to a non-final Office Action mailed July 2, 2007, the Applicants filed an Amendment on September 24, 2007. In response to a final Office Action mailed December 14, 2007, the Applicants filed a Notice of Appeal on March 7, 2008. Subsequently, the Applicants filed an Amendment After Notice of Appeal Prior to Appeal Brief on March 28, 2008. An Advisory Action was mailed on April 24, 2008, indicating that amendments in the March 28, 2008 Amendment would be entered for purposes of appeal.

All filed Amendments have been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is, in various aspects, relates to a system which connects an image input device (e.g., a digital camera having a plurality of operation modes) to an image processing apparatus (e.g., a personal computer) and which inputs and saves images. Also, the present invention relates to a method of controlling such system. (See, for example, the Specification at page 1, lines 7-12).

INDEPENDENT CLAIMS

The independent claims involved in the appeal are claims 67 and 75.

Claim 67 is generally directed to an "image input system, which includes an image input device having a plurality of operation modes and a computer having a plurality software programs each corresponding to each of the plurality of operation modes of the image input device" (see, for example, the Specification at page 6, line 25 to page 7 line 11 and page 12, line 17 to page 13, line 16).

Claim 67 sets forth "a transmitting unit adapted to transmit information indicating an operation mode set in said image input device to said computer when said image input device and said computer are connected with each other and a communication between said image input device and said computer is established" (see, for example, the Specification at page 14, line 18 to page 17, line 7, and Fig. 1, reference numeral 1).

Claim 67 also sets forth "a receiving unit arranged in said computer and adapted to receive the information indicating the operation mode set in said image input device" (see, for example, the Specification at page 14, line 18 to page 17, line 7, and Fig. 3, reference indication "PC").

Claim 67 further sets forth “a control unit adapted to select a software program, which corresponds to the operation mode set in said image input device, from the plurality of software programs and make start the selected software program” (see, for example, the Specification at page 17, lines 8-10, and Fig. 5).

Claim 67 additionally sets forth, “wherein when said image input device and said computer are disconnected in a state that said image input device and said computer are connected with each other and the software program corresponding to the operation mode of said image input device is operating, it is set in every software whether the software is kept in an operating state or an operation of the software is terminated” (see, for example, the Specification at page 18, line 12 to page 19, line 4, page 20, line 25 to page 21, line 11, page 22, line 19 to page 23, line 4, and page 24, lines 9-20).

Claim 75 is a method claim directed to a method of controlling an image input system, corresponding to the image input system of claim 67.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues on appeal are whether:

claims 67, 68, 70 and 75 would have been obvious under 35 U.S.C. §103(a) over Fukasaka et al. (European Patent Application Publication No. 860 978 A2, herein “Fukasaka”) in view of Camara et al. (U.S. Patent No. 6,373,507, herein “Camara”);

claims 69 and 72 would have been obvious under 35 U.S.C. §103(a) over Fukasaka in view of Camara, and further in view of Norris (U.S. Patent No. 5,864,411); and

claim 71 would have been obvious under 35 U.S.C. §103(a) over Fukasaka in view of Camara, and further in view of Doriscoll, Jr. et al. (U.S. Patent No. 6,542,184, herein “Doriscoll”).

Claims 67 and 75 are independent.

VII. ARGUMENT

A. Independent Claims 67 And 75, And Claims 68-72 That Depend From Claim 67, Are Not Obvious Over The Cited References, Either Taken Individually Or In Combination.

In an Amendment filed September 24, 2007, in response to a Non-Final Office Action mailed July 2, 2007, the Applicants canceled claims 1-54 and added new claims 55-75.

In a Final Office Action mailed December 14, 2007, the Examiner rejected claims 55, 56, 58, 67, 68, 70, 73 and 75 under 35 U.S.C. §103(a) as unpatentable over Fukasaka in view of Camara.

Following a Notice of Appeal filed March 7, 2008, the Applicants filed the Amendment After Notice of Appeal and Prior to Appeal Brief on March 28, 2008, in which claims 55-66, 73 and 74 were canceled. An Advisory Action was mailed on April 24, 2008, indicating that amendments in the March 28, 2008 Amendment would be entered for the purposes of appeal. Accordingly, claims 67, 68, 70 and 75 stand rejected under 35 U.S.C. §103(a) based on the combination of Fukasaka and Camara.

Independent claim 67 is directed to an image input system that includes an image input device and a computer. The image input device has a plurality of operation modes. The computer has a plurality of software programs each corresponding to each of the plurality of operation modes of the image input device.

According to claim 67, the image input system has a transmitting unit, a receiving unit and a control unit. The transmitting unit transmits information, which indicates an operation mode set in the image input device, to the computer when the image input device and the computer are connected with each other, and a communication between the image input device

and the computer is established. The receiving unit is arranged in the computer and receives from the image input device the information indicating the operation mode set in the image input device.

With respect to features of the control unit, claim 67 recites as follows:

a control unit adapted to select a software program, which corresponds to the operation mode set in said image input device, from the plurality of software programs and make start the selected software program wherein when said image input device and said computer are disconnected in a state that said image input device and said computer are connected with each other and the software program corresponding to the operation mode of said image input device is operating, it is set in every software whether the software is kept in an operating state or an operation of the software is terminated.

In this last regard, the Examiner states in the December 14, 2007 Final Office Action at page 7, line 1 to page 8, line 2, as follows.

While Fukasaka et al. disclose that the image input device (101) and computer (201) are connected and a communication between each other is established, wherein, in the computer, a software program is selected and started in response to an operation mode selection, in the image input device, Fukasaka et al. does not disclose wherein when said image input device and said computer are disconnected in a state that said image input device and said computer are connected with each other and the software program corresponding to the operation mode of said image input device is operating.

On the other hand, Camara et al. also disclose a camera connected to computer. More specifically, Camara et al. shows, in figure 1, a camera (28) connected to the computer (22) and software ("image acquisition system") on the computer (22) corresponding to the camera (see figure 6). Camara et al. state, "the image acquisition system is described as being integrated into an operating system that supports a graphical user interface windowing environment" (see column 4, lines 21-24). Camara et al. also state, "The 'Imaging Devices' window 110 distinguishes between devices that are currently available and those that are not available (e.g., offline, physically removed, etc.)" (see column 4, lines 57-61). Therefore, Camara et al. teach wherein the operating

system, including the image acquisition system, continues to operate even though the camera may be physically removed (i.e., disconnected from the computer).

Thus, as stated in column 1 (lines 31-34), at the time the invention was made, it would have been obvious to one with ordinary skill in the art to keep the software program operating when the image input device and computer are disconnected in a state that said image input device and said computer are connected with each other, as taught by Camara et al. in the image input system, disclosed by Fukasaka et al., for the advantage of providing image acquisition software that could be integrated with existing application and operating systems to provide a convenient environment for the user.

The Applicants note that it appears that the Examiner merely repeated his arguments advanced for independent claim 55 to advance the above arguments for claim 67 by copying and pasting substantially the entire portion of the arguments for claim 55 except that the Examiner deleted one phrase “said control unit keeps the software program operating” from the arguments for claim 55 at page 4, line 12 to make the arguments for claim 67. Features of claim 55 are different from those of claim 67 in that claim 55 recites the last features of the control unit as “*said control unit keep the software program operating.*” In contrast, claim 67 recites the last features of the control unit as “*it is set in every software whether the software is kept in an operating state or an operation of the software is terminated,*” as noted above. Thus, it is apparent that the Examiner did not modify his arguments for claim 55 to properly apply to claim 67 which included features different from claim 55. Consequently, the Examiner’s arguments are unclear and incomplete with respect to his obviousness rejection of claim 67 relating to at least the control unit’s features that “*it is set in every software whether the software is kept in an operating state or an operation of the software is terminated.*”

Even assuming arguendo that the Examiner's position is to reject all of the features recited in claim 67 as obvious over the combined teachings of Fukasaka and Camara, the Applicants respectfully disagree with that position.

According to claim 67, a software program, which corresponds to one of the operation modes of the image input device, is selected from a plurality of software programs in the computer on the basis of information indicating the operation mode set in the image input device when the image input device is connected to the computer and a communication between the image input device and the computer is established. The selected software is started when the communication is established. Then, when the image input device and the computer are disconnected from each other, it is set for every software program whether or not the operation of the software is kept or terminated.

In this last regard, the Specification describes at, for example, page 16, line 14 to page 17, line 4 as follows.

In the third example, the camera has already been set in a given mode, the corresponding application has already been started, and the camera and application are connected and communicate with each other. In this state, when the user sets the camera in another mode (step S403), the camera sends a disconnection message to the connected application at that timing to disconnect the communication with the application (step S405). At that time, whether the application automatically ends or is disconnected but kept running depends on the setups of the application. A message indicating a new mode in which the camera is set currently is sent to the PC (step S406). After that, the camera checks if sensed images are present in the camera (step S407). If no images are present, the camera also sends a message indicating that no images are present in the camera (step S408).

Further, the Specification describes the non-limiting embodiment that includes the operation modes of a playback (e.g., "Play") mode, image sensing (e.g., "Rec") mode, stitch

assist (e.g., "Stitch") mode and slideshow playback (e.g., "Slide"),¹ and describes how the operation of a software program, which corresponds to one of the operation modes, would be handled when the camera and the PC are disconnected from each other, as follows.

When another mode is selected at the camera while the browser software is connected to the camera, or when the power switch of the camera is turned off, the camera sends a corresponding message to the browser software. At this time, the browser software executes a process for disconnecting the communication with the camera, and then executes one of the following three options.

The first option automatically ends the browser software, the second option displays a message indicating that the connection with the camera is disconnected by user operation to the user, and prompts the user to select whether the browser software is to end or continue, and the third option continues to run the browser software. These options can be selected from a setup menu of the browser software. As a default, the second option that prompts the user to select whether the browser software is to end or continue is preferably set.²

When another mode is selected at the camera while the on-line image sensing software is connected to the camera, or when the power switch of the camera is turned off, the camera sends a corresponding message to the on-line image sensing software. At this time, the on-line image sensing software executes a process for disconnecting the communication with the camera, and then automatically ends itself. The aforementioned browser software has options for selecting, e.g., whether or not the software continues to run, but such options are not available for this software. This is because the on-line image sensing software does not function at all unless it is connected to the camera.³

When another mode is selected at the camera while the stitch synthesis software is connected to the camera, or when the power switch of the camera is turned off, the camera sends a corresponding message to the stitch synthesis software. At this time, the stitch synthesis software disconnects the connection with

¹ See the Specification at page 14, lines 21-25.

² See the Specification at page 18, line 12 to page 19, line 4.

³ See the Specification at page 20, line 25 to page 21, line 11.

the camera. In this case, if all the stitch assist images in the camera have already been loaded, the stitch synthesis software continues a synthesis process. However, if all the images have not been loaded yet, the stitch synthesis software automatically ends itself since it cannot execute a synthesis process.⁴

When another mode is selected at the camera while the slideshow playback software is connected to the camera, or when the power switch of the camera is turned off, the camera sends a corresponding message to the slideshow playback software. At this time, the slideshow playback software disconnects the connection with the camera. In this case, if all the stitch assist images in the camera have already been loaded, the slideshow playback software continues slideshow playback. However, if all the images have not been loaded yet, the slideshow playback software automatically ends itself since it cannot execute slideshow playback.⁵

In the December 14, 2007 Final Office Action, the Examiner acknowledges, as noted above, that the cited reference of Fukasaka does not disclose the features of the control unit that, when said image input device and said computer are disconnected in a state that said image input device and said computer are connected with each other and the software program corresponding to the operation mode of said image input device is operating, it is set in every software whether the software is kept in an operating state or an operation of the software is terminated, as recited in claim 67.⁶ In other words, Fukasaka does not disclose how, in the control unit, the operation of a software program would be handled when the image input device and the computer are disconnected from each other. Then, the Examiner combines Camara with Fukasaka to supplement the above-noted deficiency of Fukasaka.

⁴ See the Specification at page 22, line 19 to page 23, line 4.

⁵ See the Specification at page 22, line 19 to page 23, line 4.

⁶ See the December 14, 2007 Final Office Action at page 7, lines 1-7.

With respect to Camara, the Examiner contends that Camara discloses the above-discussed features of the control unit recited in claim 67 as to how the operation of a software program would be handled when an image input device and a computer are disconnected. Specifically, the Examiner states that Camara “shows, in figure 1, a camera (28) connected to the computer (22) and software (“image acquisition system”) on the computer (22) corresponding to the camera (see figure 6)” and that Camara states “[t]he ‘Imaging Devices’ window 110 distinguishes between devices that are currently available and those that are not available (e.g., offline, physically removed, etc.).”⁷

In this regard, in the “Imaging Devices” window 110, Camara merely distinguishes unavailable devices from available devices by dimming the icons of the unavailable devices and merely gives the user an option of uninstalling them.⁸ Further in this regard, Camara describes that, as shown in Figs. 5-7, “[a]ctivating one of the imaging devices listed in window 110 causes the image acquisition system to present different windows exhibiting contexts that are specific to the selected imaging device.”⁹ For example, Camara describes that “FIG. 5 shows a ‘My Scanner’ window 120 that is presented upon selection of the ‘My Scanner’ icon 114 in FIG. 4.”¹⁰

However, Camara does not disclose, teach or suggest, when an active imaging device, as originally indicated in the window shown in one of FIGS. 5-7, becomes inactive as a result of the imaging device being disconnected from the computer, how the indication of that imaging device

⁷ See the December 14, 2007 Final Office Action at page 7, lines 8-15, and Camara at, for example, column 4, lines 58-60, and FIGS. 1 and 6.

⁸ See Camara at, for example, column 4, lines 58-64.

⁹ See Camara at column 4, line 65 to column 5, line 1.

¹⁰ See Camara at column 5, lines 5-7.

in the window would be changed, that is how operation of a software corresponding to that imaging device would be handled.

Therefore, Camara does not disclose, teach or suggest the features that, “wherein when said image input device and said computer are disconnected in a state that said image input device and said computer are connected with each other and the software program corresponding to the operation mode of said image input device is operating, it is set in every software whether the software is kept in an operating state or an operation of the software is terminated,” as recited in claim 67. Accordingly, claim 67 is patentably distinguishable over the cited references of Fukasaka and Camara, either taken individually or in combination.

With respect to the cited reference of Xu, the Examiner rejected independent claim 61, in the December 14, 2007 Office Action, under 35 U.S.C. §103(a) as unpatentable over Fukasaka in view of Xu. In this regard, the features recited in claim 61 were substantially the same as those recited in claim 67 except that features of the control unit in claim 61 were different from the above-discussed features of the control unit in claim 67. Specifically, the features of the control unit were recited in claim 61 that, “wherein when said image input device and said computer are disconnected in a state that said image input device and said computer are connected with each other and the software program corresponding to the operation mode of said image input device is operating, *said control unit terminates an operation of the software program.*”

In the December 14, 2007 Office Action at page 14, the first full paragraph, the Examiner acknowledges that Fukasaka does not disclose the above-noted features of the control unit recited in claim 61. Then, the Examiner combines Xu with Fukasaka to supplement the deficiency of Fukasaka. The Examiner states that Xu discloses the above-noted features of the control unit recited in claim 61, as follows.

On the other hand, Xu also disclose a camera connected to a computer and software. More specifically, as shown in figure 1, Xu teach a camera (70) connected to a computer (10) and software (see figure 3) corresponding to the camera (70). Xu states, “[the] program once again verifies that the camera is physically connected to the computer S12, and if it is not connected, the program is aborted, and an error flag is set so a corresponding error message will be displayed on the display to indicate the camera is not accessible.” (see column 5, lines 17-20). Therefore, Xu teach wherein the software terminates when the camera is disconnected from the computer.

Accordingly, in Xu, the program is always aborted when the camera and the computer are disconnected from each other. Thus, Xu does not disclose, teach or suggest the above-discussed features of the control unit that “it is set in every software whether the software is kept in an operating state or an operation of the software is terminated,” as recited in claim 67.

Therefore, the features recited in claim 67, and claims 68-72 dependent therefrom, are patentably distinguishable over the cited references of Fukasaka, Camara and Xu, either taken individually or in combination. Independent claim 75 is also patentably distinguishable over the cited references, either taken individually or in combination, for at least the above reasons advanced for claim 67 to the extent that claim 75 includes features substantially similar to those included in claim 67.

Accordingly, the Applicants respectfully submit that the Examiner has failed to provide a proper rejection under 35 U.S.C. §103(a) of independent claims 67 and 75, and claims 68-72 that depend from claim 67.

VIII. CONCLUSION

The Examiner has found no reference or references that individually or in combination disclose, teach, or suggest the features recited in the claims in the present application. The Applicants believe that all pending claims are allowable. Therefore, the Applicants respectfully request that the Examiner's rejection be reversed.

IX. AUTHORIZATION

The Commissioner is hereby authorized to charge any fees which may be required for this Appeal Brief, or credit any overpayment to Deposit Account No. 13-4500, Order No. 1232-4568.

Furthermore, in the event that an extension of time is required, the Commissioner is requested to grant a petition for that extension of time which is required to make this submission timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-noted Deposit Account and Order Nos.

Dated: May 5, 2008

Respectfully submitted,

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APPENDIX 1 - CLAIMS

1-66 (Canceled).

67 (Previously Presented): An image input system, which includes an image input device having a plurality of operation modes and a computer having a plurality software programs each corresponding to each of the plurality of operation modes of the image input device, comprising:

a transmitting unit adapted to transmit information indicating an operation mode set in said image input device to said computer when said image input device and said computer are connected with each other and a communication between said image input device and said computer is established;

a receiving unit arranged in said computer and adapted to receive the information indicating the operation mode set in said image input device; and

a control unit adapted to select a software program, which corresponds to the operation mode set in said image input device, from the plurality of software programs and make start the selected software program wherein when said image input device and said computer are disconnected in a state that said image input device and said computer are connected with each other and the software program corresponding to the operation mode of said image input device is operating, it is set in every software whether the software is kept in an operating state or an operation of the software is terminated.

68 (Previously Presented): The system according to claim 67, wherein the operation modes of said image input device include at least one of an image playback mode, image sensing mode, panoramic image sensing mode, and slideshow playback mode.

69 (Previously Presented): The system according to claim 68, wherein in case that the operation mode of said image input device is the image playback mode, said control unit selects an image browsing software and makes start the image browsing software, and the image browsing software loads all images in said image input device.

70 (Previously Presented): The system according to claim 68, wherein in case that the operation mode of said image input device is the image sensing mode, said control unit selects an image sensing software and makes start the image sensing software, and the image sensing software displays a preview image and senses an image on said computer.

71 (Previously Presented): The system according to claim 68, wherein in case that the operation mode of said image input device is the panoramic image sensing mode, said control unit selects a panoramic image generation software and makes start the panoramic image generation software, and the panoramic image generation software loads images which are sensed in the panoramic image sensing mode and stored in said image input device, and executes a synthesis process of the loaded images.

72 (Previously Presented): The system according to claim 68, wherein in case that the operation mode of said image input device is the slideshow playback mode, said control unit

selects a slideshow playback software and makes start the slideshow playback software, and the slideshow playback software loads images in said image input device and displays the loaded images on a screen of said computer.

73 and 74 (Canceled).

75 (Previously Presented): A method of controlling an image input system, which includes an image input device having a plurality of operation modes and a computer having a plurality software programs each corresponding to each of the plurality of operation modes of the image input device, comprising:

a transmitting step of transmitting information indicating an operation mode set in said image input device to said computer when said image input device and said computer are connected with each other and a communication between said image input device and said computer is established;

a receiving step of receiving by the computer the information indicating the operation mode set in said image input device; and

a control step of selecting a software program, which corresponds to the operation mode set in said image input device, from the plurality of software programs and making start the selected software program wherein when said image input device and said computer are disconnected in a state that said image input device and said computer are connected with each other and the software program corresponding to the operation mode of said image input device is operating, it is set in every software whether the software is kept in an operating state or an operation of the software is terminated.

APPENDIX 2 - EVIDENCE

None

APPENDIX 3 – RELATED PROCEEDINGS

None